

Abstract

Ion imprinted polymer materials are synthesized containing metal ion recognition sites. These particles are synthesized by copolymerizing with functional and cross linking monomers in presence of at least one imprint metal ion in the form of ternary complex. The
5 polymerization was carried out by γ -irradiation (in the absence of initiator) or photochemical and thermal polymerization (in presence of initiator, AIBN). These materials were ground and sieved after drying to obtain erbium ion imprinted polymer particles. The erbium ion was removed from the polymer particles by leaching with mineral acid which leaves
10 cavities/binding sites in the polymer particles. The resultant polymer particles can be used as solid phase extractants for selective enrichment of erbium ions from dilute aqueous solutions.